

# **Stakeholder integration, environmental sustainability orientation and financial performance**

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## **Abstract**

Despite the growing research on the influence of stakeholder integration on organizational outcomes, our understanding of the specific firm-level conditions that may mediate the relationship between stakeholder integration and financial performance is lacking. Using primary data gathered from 233 small and medium-sized enterprises in Ghana, we found empirical support for our contention that the link between stakeholder integration and financial performance is mediated by a firm's environmental sustainability orientation (ESO). In addition, our study demonstrated that competitive intensity moderates the indirect relationship between stakeholder integration and financial performance in such a way that the indirect effect through environmental sustainability orientation is stronger for higher levels of industry competition. We discuss theoretical and managerial implications of these findings.

**Key words:** stakeholder integration; environmental sustainability orientation; competitive intensity; financial performance; Ghana.

## **1. Introduction**

In countries of the Global South characterized by institutional voids such as lack of an effective legal system, corporate malfeasance, inadequate institutional support and policy uncertainty, stakeholder integration may well be a catalyst in driving corporate behavior and firm performance (Khanna Palepu, 2005; Mair & Marti, 2009). Stakeholder integration refers to partnerships where organizational stakeholders such as customers, communities and suppliers inform organizational practices to deliver improved performance (Amankwah-Amoah, Danso & Adomako, 2018; Desai, 2018; Plaza-Úbeda, de Burgos-Jiménez & Carmona-Moreno, 2010; Sharma & Vredenburg, 1998). Indeed, some studies indicate that stakeholder engagement activities influence firms' competitiveness advantage (Vachon & Klassen, 2008; Madsen & Ulhøi, 2001). Accordingly, stakeholder integration has become a pivotal feature of the operation of firms.

Notwithstanding the growing theoretical and empirical interest in stakeholder integration in managerial decision-making (e.g., Li, Xia & Zajac, 2018; Erdiaw-Kwasie, Alam, & Kabir, 2017), our current understanding regarding how stakeholder integration relates to financial performance remains limited. We propose that stakeholder integration can stimulate financial performance by prompting organizations to engage in environmental sustainability orientation (ESO). Thus, by examining the mediating mechanism theoretically and empirically, we show how stakeholder integration affects financial performance. Furthermore, there is a paucity of research examining the relevant contingencies in ESO.

Accordingly, we seek to address these gaps in the literature. We develop and test a model in an emerging country setting – Ghana. Being an emerging economy, firms in Ghana face many institutional challenges. Thus, in such a context, stakeholder integration may help to provide the needed structural support to mitigate the weak institutional structures and consequently enhance the financial performance of the firms.

We contribute to the stakeholder theory and environmental sustainability literature in two major ways. First, we extend prior studies (e.g., Nidumolu, Prahalad & Rangaswami, 2009; Harrison, Bosse & Phillips, 2010; Bridoux & Stoelhorst, 2014; Patel et al., 2016; Jones, Harrison & Felps, 2018; Criado-Gomis et al., 2017; Hernández-Perlines & Cisneros, 2018) by examining whether the relationship between stakeholder integration and financial performance is mediated by ESO. Second, we integrate industry competition as a contingent factor on the relationship between stakeholder integration and ESO. Thus, we further extend the boundaries of the stakeholder literature (e.g., Freeman, 1984; Aarseth, Rolstadås, & Andersen, 2011; Andersen, 2008; Eskerod, Huemann, & Ringhofer, 2015) and ESO literature (Amankwah-Amoah, Danso & Adomako, 2018; Sarkis & Cordeiro, 2001; De Menezes, Wood & Gelade 2010; Feng et al., 2017).

Overall, we contribute to a novel understanding on the importance of stakeholder integration in firm success.

This paper is structured as follows. After the introduction, the second part presents the theoretical background and the hypotheses development. This is followed by analysis of the research method and findings. The final section focuses on the implications of the results as well as the limitations of the study and direction for future research.

## **2. Theoretical background and hypotheses**

### ***2.1 Stakeholder theory***

Stakeholder theory has its foundation in strategic management literature (Abrams, 1951; Cyert & March, 1963; Ansoff, 1965; Rhenman, 1968; Ackoff, 1974; Freeman, 1984). The basic tenet of the stakeholder theory suggests that stakeholders are critical for a firm's success as they affect the firm's long-term strategic goals (Freeman, 1984; Andersen, 2008; Aarseth, Rolstadås & Andersen, 2011). As such, directly and explicitly integrating stakeholder interests into a firm's strategic decisions is critical for the firm's success (Theodoulidis et al., 2017). However, there is no consensus as to what the term stakeholder means (Miles, 2012). This is partly attributed to scholars placing varying emphases on the inclusiveness of who constitutes a stakeholder (Derry, 2012). Moreover, conflicts of interest between managers and stakeholders or among the stakeholders themselves may exist to blur the definition and roles (Eskerod, Huemann, & Ringhofer, 2015).

On the other hand, Mitchell, Agle and Wood (1997) argued for the prioritization of identified stakeholders on three key attributes: power, legitimacy, and urgency. An urgent request from a powerful and legitimate stakeholder requires significant and prompt management attention relative to one from a stakeholder lacking these three attributes. Freeman (1984) advocated a need to pay greater consideration to primary and secondary stakeholders for purposes of effectively

allocating management's scarce resources. Primary stakeholders are classified as more vital to a firm's survival and well-being, particularly where the firm is highly dependent on stakeholder contributions (financial and nonfinancial resources) for specific issues (Savage et al., 1991). This argument is in line with the resource dependency theory (Frooman, 1999; Pfeffer & Salancik, 2003), which completely emphasizes stakeholders' influence on an organization rather than how stakeholders are affected by the organization (Eskerod, Huemann & Ringhofer, 2015).

It has been suggested that prioritization leaves a considerable gap between what a focal organization understands as stakeholders' interests and what stakeholders themselves perceive are their interests (Bryson, 2004). This dichotomy can be the cause of unanticipated resistance from stakeholders during the implementation of management decisions (De Gooyert et al., 2017). Rowley (1997) therefore suggested the concept of 'stakeholder multiplicity', which stressed that management must acknowledge stakeholders as part of a network rather than 'a dyadic image'. This created the foundation for a clearer understanding of the exchanges between stakeholders, and their potential for communicating and starting coalitions, and consequently expanding their organizational power. Thus, the typology of stakeholder integration necessitates a distinction between informing, consulting, and co-deciding (Green & Hunton-Clarke, 2003). The acknowledgment of the significance of misperceiving stakeholder interests championed the advancement of substantial literature on stakeholder integration. The evidence suggests that certain strategic decisions may prove to require discussions with stakeholders to warrant better understanding due to their complexity (Calton & Payne, 2003). Although integration inherently represents a morally neutral practice (Greenwood, 2007), it facilitates the creation of lasting and mutually beneficial relationships (Maak, 2007) and may lead to greater financial returns (Henisz, Dorobantu, & Nartey, 2014). The concept of stakeholder integration is relevant to this paper because it pitches the probable existence of different stakeholders with similar or complementary

claims on the focal organization, and therefore either intensifying the gravity of their claims or complicating the stakeholder management task due to conflicting claims, and consequently affecting the firm's financial performance.

## ***2.2 Environmental sustainability***

As the natural environment and business functions have become inextricably linked, organizational environmental sustainability has become the mantra of several management theorists and forward-thinking practitioners since the early 1990s. The concept of environmental sustainability was first conceived by World Bank researchers who adopted the term 'environmentally responsible development' (World Bank, 1992). Later, Serageldin and Streeter (1993) extended their idea into the concept of 'environmentally sustainable development', which later metamorphosed into the concept of 'environmental sustainability' (Goodland, 1995). Environmental sustainability aims at sustaining global life-support systems indefinitely. Basically, it comprises strategies intended to improve human welfare by safeguarding raw material sources and minimizing wastage whilst preventing harm to humans (Goodland, 1995). The arguments of these authors pointed to the fact that a firm's role with respect to environmental practice and strategies evolves over time. Additionally, a key portion of the philosophical content of these concepts includes the already discussed stakeholder theory which integrates environmental concerns in accounting for stakeholder concerns (Starik, 1995; Bremmers et al., 2007). As the new millennium progresses, profitability, productivity, and environmental consciousness are increasingly integral to the long-term goals of all firms (Sarkis, 2001).

Firms in the early 1970s operated under a command-and-control approach that required them to comply with regulations and legislation (Sarkis, 2001). In contrast, recent evidence shows higher levels of collaboration or compromised situations between firms and state agencies.

Although regulatory pressures remain prevalent, firms have taken on a more enlightened and strategic position that guarantees probable competitive advantages from appropriate environmental strategies (Benitez-Amado, Llorens-Montes & Fernandez-Perez, 2015). These advantages may originate from reactive measures such as regulatory policy responses (Porter & Van der Linde, 1995a, 1995b), or from highly proactive measures such as green marketing, technology development, reduction in wastage, and product stewardship (Sarkis, 2001). Moreover, these strategies usually create win/win situations for firms where improved environmental and firm financial performance are positively correlated. However, like any other policies, strategies or programs, they involve risk that may sometimes cause win/win situations to be elusive (Walley & Whitehead, 1994).

Previous studies indicate that it pays to be green for some firms (Hart & Ahuja, 1996). A firm's operations are core and critical to its role in the ecocentric (Shrivastava, 1995a), ecoefficient (Schmidheiny, 1992), and/or ecoeffective (McDonough & Braungart, 1998) organization in the new millennium. All these theories basically advocate for the incorporation of the natural environment in organizational strategy and operational decisions. Thus, the ecocentric theory postulates that an organization represents one element of, and is subservient to, the natural environment. Additionally, these theories offer a description of a firm and its operations as a closed-loop system rather than a linear system. Indeed, the natural resource-based view (Hart, 1995) also supports these theories by stressing that a firm can incorporate environmental friendliness into its performance functions and simultaneously achieve superior performance (Amankwah-Amoah, Danso & Adomako, 2018).

Environmental sustainability management represents a key activity in the execution of operations strategy to increase firm performance (Youndt et al., 1996; Sarkis & Cordeiro, 2001; De Menezes, Wood & Gelade 2010; Feng et al., 2017). In recent years, several firms have

established and implemented environmentally compliant mission statements. Similarly, extensions to financial reporting now incorporate yearly environmental reports. Certain firms even have vice presidential and board positions designated for environmental specialists. The introduction and implementation of environment-friendly policies increase the likelihood of improving firm efficiency, and consequently serve as a superior source of competitive advantage (Hart, 1995; Aragón-Correa & Sharma, 2003; Amankwah-Amoah, Danso, Adomako; 2018). By eliminating and recycling waste, firms are better positioned to attain stakeholder integration whilst simultaneously improving their competitiveness.

The subsequent sections present arguments that formed the basis of formulating the hypotheses. Thus, the following sections examine the potential mediating role of ESO on the relationship between stakeholder integration and financial performance. In addition, we present arguments leading to the view that the relationship between stakeholder integration and financial performance is moderated by competition intensity. Figure 1 below presents the conceptual model and hypotheses of the study.

**[Figure 1 about here]**

### ***2.3 Stakeholder integration, environmental sustainability orientation, and financial performance***

A firm represents a nexus of relationships among its key stakeholders with the primary objective of enhancing firm value (Freeman, 1984; Freeman et al., 2010; Jones, 1995; Parmar et al., 2010; Harrison & Wicks, 2013). These key stakeholders enhance performance through the undertaking of productive activities or providing important resources or both (Choi & Wang, 2009; Bridoux & Stoelhorst, 2014). For instance, certain investors may provide financial resources as well as contribute to performance by advising managers. Similarly, customers will enhance performance



through the purchase of the firm's products (Bridoux & Stoelhorst, 2014), adopt advocacy behaviors toward the firm or its brands (Bhattacharya & Sen, 2003), or engage in user-led innovation processes (von Hippel, 1988). Stakeholder integration basically involves undertaking operational practices that involve stakeholders positively engaged in organizational decisions and activities (Greenwood, 2007).

Indeed, constraints imposed by scarce resources inhibit the firm's ability to meet the demands of various stakeholder groups at the same level of importance. Such constraints have the potential to inhibit performance outcomes (Starik, 1995; Chiu & Wang, 2015). In emerging markets, such firms are susceptible to country of origin liabilities due to the perceived poor institutional quality of their home countries (Khanna & Palepu, 1997) which, in the eyes of many international stakeholders, translates into credibility and legitimacy deficits for such firms (Madhok & Kayhani, 2012; Fiaschi, Giullani & Nieri, 2017). Where firms experience the so-called liability of origin, their geographical location actually becomes a liability which restricts their ability to collaborate with other firms and access scarce resources and expertise (Amankwah-Amoah & Debrah, 2017). A key global strategy for such firms to limit their liability of origin is by adopting initiatives that demonstrate convergence toward globally accepted environmental sustainability standards (Fiaschi et al., 2015; Zheng et al., 2015; Marano, Tashman & Kostova, 2017). Thus, we expect stakeholder integration to be positively related to ESO.

Environmental sustainability enables firms to strengthen their moral dimension, and enhance both local and global reputation (Fombrun, 1995; Barnett, Jermier & Lafferty, 2006; Godfrey, 2005) and 'generalized favorability' (Lange, Lee & Dai, 2011) through dialogue with, and positive impacts on, different stakeholders (Fiaschi, Giullani & Nieri, 2017). Environmental sustainability is conceptualized as a capability that facilitates execution of the operations strategy to increase firm performance (Benitez-Amado, Llorens-Montes & Fernandez-Perez, 2015). For

instance, environmental sustainability practices can reduce consumption of raw materials and wastage to save costs and improve the firm's reputation to increase revenues (Montabon, Sroufe & Narasimhan, 2007). Accordingly, environmental sustainability may enable firms to accrue benefits to such an extent that it may help them to offset any constraints stemming from the lack of key stakeholder engagement needed to achieve business success.

Previous studies and meta-analyses indicate that implementation of corporate social responsibility (CSR) and sustainability activities drives market performance (Helmig, Spraul & Ingenhoff, 2016; Margolis & Walsh, 2001; Orlitzky, Schmidt, & Rynes, 2003). In this study, following extant research (e.g., Kim, Kim & Qian 2018, Hategan et al., 2018; Platonova et al., 2018), we operationalize performance via an index of six core financial performance indicators. Evidence suggests that 'doing good' socially leads to 'doing well' financially<sup>5</sup> (e.g., Waddock & Graves 1997; Nelling & Webb, 2009; Wang & Choi, 2013; Muhammad et al., 2015; Javed, Rashid & Hussain, 2016; Hategan et al., 2018).

Two core theories fundamentally illuminate the effect of sustainability on corporate financial performance: value creating and value destroying (Yu & Zhao, 2015; Alshehhi, Nobanee & Khare, 2018). The value-creation theory postulates that adoption of environmental and social responsibility drives a reduction in firm risk (Jain, Jain & Rezaee, 2016). Conversely, the value-destruction theory envisages that adopting environmental and social responsibility weakens a firm's profit goals, and rather champions stakeholder satisfaction at the expense of shareholders (Alessandri, Black & Jackson III, 2011; Jian & Lee, 2015). Other theories also advance lacunae on the nexus between sustainability and corporate financial performance. In line with the value-

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<sup>5</sup> See Albertini (2013), Dixon-Fowler et al. (2013), Lu, et al. (2014), Wang, Dou & Jia (2016), Grewatsch & Kleindienst (2017), and Alshehhi, Nobanee & Khare (2018) for a further review of literature and meta-analysis on corporate sustainability practices and financial performance.

destruction theory, the trade-off theory posits a negative nexus when resources are invested in less profitable sustainable activities (Endrikat, Guenther & Hoppe, 2014; Rivera, Muñoz & Moneva, 2017). Contrarily, the resource-based theory and stakeholder theory support a positive nexus. This is in line with the value-creation theory. The resource-based theory (Penrose, 1959; Wernerfelt, 1984) articulates that firms possess distinctive capabilities which, if utilized strategically, can enhance competitive advantages and drive better financial performance (Haffar & Searcy, 2017). As discussed above, the stakeholder theory stresses that pleasing stakeholders (environmental or social) strengthens financial performance (Chernev & Blair, 2015). In line with this reasoning, the signaling theory of voluntary disclosure argues that firms that champion sustainable environmental, social and governance (ESG) and financial performance (“good” firms) are driven by the need to differentiate themselves from other firms which lack ESG and financial sustainability (“bad” firms) (Jain, Jain & Rezaee, 2016). The slack resources theory further confirms a reverse causality, where superior financial performance drives sufficient slack to support sustainable activities (Seifert, Morris & Bartkus, 2004; Surroca, Tribó & Waddock, 2010). Where a positive nexus and a reverse causality are initiated, a virtuous cycle is created (Martínez-Ferrero & Frías-Aceituno, 2015).

Whilst market performance highlights the firm’s ability to enhance its market share and to attract and retain customers, we contend that positive sustainability orientation can attenuate the possibility of difficulty when dealing with stakeholder groups such as customers, employees, and the community. Thus, pleasing stakeholders (environmental or social) should strengthen financial performance (Chernev & Blair, 2015). In addition, stronger sustainability performance can spur good managerial practice which may in turn lead to strong financial performance (Nelling & Webb, 2009). For example, firms achieve stronger financial performance in the form of long-run stock performance when quality management practices are integrated into

management systems (Ferreira, Sinha & Varble, 2008). This indicates that good managerial practices improve the bottom line. Taken together, we suggest the following hypothesis:

**H1:** *The relationship between stakeholder integration and financial performance is mediated by ESO.*

#### ***2.4 The moderating effect of competitive intensity***

In the financial literature, firm performance is measured through competitive position, net margin, and profitability of the firm (Mithas, Ramasubbu & Sambamurthy, 2011). Prior literature has demonstrated that resource constraints such as deficiencies in employee expertise and infrastructural inadequacies, and institutional obstacles such as legal and regulatory restrictions can critically inhibit innovation and a firm's operations (Pissarides, 1999; van Burg et al., 2012). Indeed, scarce financial resources impede a firm's idea generation and innovative ability (De Carolis et al., 2009), and survivorship (Eisenhardt & Schoonhoven, 1996). However, other researchers advocate for innovation to be practically induced through resource constraints (Hoegl, Gibbert & Mazursky, 2008). Given that resource constraints strongly affect companies in emerging economies, firms are strategically forced to identify new ways to improve their performance.

A key channel through which such firms can enhance their competitiveness whilst attaining superior performance is through stakeholder engagement and environmental sustainability strategies (Dechant & Altman, 1994; Shrivastava, 1995b, 1995c; Sarkis & Cordeiro, 2001; Leonidou et al., 2017). Environmental sustainability is an operational capability capable of increasing firm performance through better execution of sustainable operational practices targeted at enhancing profitability/revenues while decreasing environmental impact (Benitez-Amado, Llorens-Montes & Fernandez-Perez, 2013). Sustainable operational practices enhance product and process innovation, consequently leading to better firm performance (Montabon, Sroufe &

Narasimhan, 2007). Moreover, environmental sustainability also enables a firm to improve its perceived product quality and augment brand image (Sheridan, 1992), leading to increased sales and revenues (Narasimhan & Schoenherr, 2012). Adoption of environmental sustainability also facilitates better firm reputation and greater legitimacy and recognition from regulators, which consequently enable easy approval for capital projects and greater accessibility to markets to increase share and revenues (Daily & Huang, 2001; Bansal & Clelland, 2004). Such a strategic orientation thus helps environmentally conscious firms to not only draw on key stakeholders' experiences and insights, but also develop and design products more in tune with their needs and the sustainability of global systems.

Stakeholders' integration into corporate decisions and strategies has also been identified as both an ethical prerequisite (Jones, Felps & Bigley, 2007) and a valuable strategic resource (Plaza-Úbeda, de Burgos-Jiménez & Carmona-Moreno, 2010) that produces sustainable competitive advantages (Berman et al., 1999; Walsh, 2005; Harrison, Bosse & Phillips, 2010; Jones, Harrison & Felps, 2018). It also stimulates firm survival (Grinstein, 2008; Laplume, Sonpar & Litz, 2008; Patel et al., 2016). Sustainable competitive advantage signifies the firm's ability to persistently create more value than the marginal (breakeven) competitor in its product market (Peteraf & Barney, 2003). Miles, Munilla and Darroch (2006) argue that stakeholders' involvement in management processes plays an essential role in minimizing their eventual concerns and enhancing the strategic outlook of CSR. It thus follows that an even tighter relationship between a firm and its stakeholders would not only lead to innovation but also to much-improved performance (see Nidumolu, Prahalad & Rangaswami, 2009). This is essential given that such alignment is more likely to facilitate first-mover advantages and minimize mismatches between stakeholders' requirements and firm's expectations. Thus, we expect stakeholder integration to be related to environmental sustainability orientation. Based on the above analysis, we propose that:

***H2:** Competitive intensity moderates the indirect relationship between stakeholder integration and financial performance in such a way that the indirect effect through environmental sustainability orientation is stronger for higher levels of competition*

### **3. Research method**

#### **3.1. Study setting**

We test our hypotheses by using a sample of small and medium-sized enterprises (SMEs) in Ghana, for many reasons. First, Ghana has experienced consistent political stability since 1992 with an all-time high GDP growth of 14% in 2011 (World Bank Group, 2018). This makes Ghana an ideal investment destination in sub-Saharan Africa (World Bank, 2011). Second, the country is widely recognized as one of few developing countries to have rapidly reduced severe hunger, from 34% in 1990 to less than 9% in 2010 (World Bank, 2010), making Ghana one of the few countries in sub-Saharan Africa to have had a successful economic transformation agenda (Acquaah, 2007; Chironga et al., 2011; Leechor, 2004). Third, Ghana is considered, in some important respects, representative of sub-Saharan African emerging economies (Julian & Ofori-Dankwa, 2013). Thus, studying stakeholder integration and firm outcomes in Ghana provides a typical emerging-market perspective on debates about how stakeholder theories influence the financial performance of firms.

#### **3.2. Sampling and data collection**

The sample firms used for this study were obtained from the Ghana Business Directory and Registrar General's Department databases (Acquaah, 2007). In total, these databases contained 8,950 small- and medium-sized enterprises. Accordingly, we contacted 1,200 firms to ask for their

participation in the study. The 1,200 SMEs sampled were those that employed a minimum of five and a maximum of 250 full-time employees and had an annual turnover below US\$20 million (Ghana Statistical Service, 2000). These criteria are in line with extant studies in the Ghanaian setting (Adomako et al., 2016). A total number of 740 firms agreed to take part in this study.

The collection of the data was carried out in two stages. First, all the 740 SMEs were contacted with a hand-delivered questionnaire. Only CEOs/entrepreneurs were asked to provide responses to the questionnaire. After many rounds of reminders, a total of 275 complete responses were received. This represents a 37.16% response rate. To mitigate potential common variance influencing the integrity of the data obtained (Podsakoff et al., 2003), the second stage of the data collection took place 11 months after the initial collection. This time, finance managers from the 275 firms were approached in person with another questionnaire to tap the financial performance. A total number of 233 responses were received from the financial managers. This represents a 31.15% effective response rate (i.e.,  $[233/740] \times 100$ ).

To probe into the possibility of non-response bias, the early and late responses were compared in terms of some key characteristics including firm age, size and growth rates. We found no significant relationship between the two groups. Thus, we concluded that non-response bias did not influence our dataset (Armstrong & Overton, 1977).

### **3.3. Measures**

#### **3.3.1 Stakeholder integration**

We conceptualized stakeholder integration as a three-dimensional construct, consisting of firms' knowledge of stakeholders, interaction with stakeholders, and adaptation to stakeholder demands (Plaza-Úbeda, de Burgos-Jiménez & Carmona-Moreno, 2010). We measured both knowledge of stakeholders and level of stakeholder interaction with four items each on a seven-point Likert scale

ranging from 1=strongly disagree to 7=to strongly agree. We measured a firm's adaptation to stakeholder demands with five items. We took a mean value of knowledge of stakeholders, interaction with stakeholders, and adaptational behavior to represent a composite measure of the stakeholder integration scale ( $\alpha=0.95$ ).

### *3.3.2. Environmental sustainability orientation*

We captured this construct with the scale developed by Roxas, Ashill and Chadee (2017). This scale captures knowledge about environmental sustainability, environmentally sustainable practices, and commitment toward environmental sustainability. We measured a firm's knowledge about sustainability with five items. To capture a firm's environmentally sustainable practices, we utilized eight items. We tapped a firm's commitment toward environmental sustainability with four items. All items were measured on a seven-point Likert scale ranging from 1=strongly disagree to 7=to strongly agree. A composite of the three dimensions constitutes the variable score for ESO ( $\alpha=0.86$ ).

### *3.3.3. Competitive intensity*

Competitive intensity was conceptualized as a situation of fierce competition as a result of intense rivalry leading to inadequate opportunities for further expansion (Auh & Menguc, 2005). Accordingly, we used a four-item scale developed by Jansen et al. (2006) to measure competitive intensity ( $\alpha = 0.77$ ). The items were measured on a seven-point Likert scale ranging from 1=strongly disagree to 7=to strongly agree.

### *3.3.4. Financial performance*

To measure financial performance ( $\alpha= 0.95$ ), we collected self-reported financial performance measures from the finance manager of each firm (e.g., Murphy, Trailer & Hill, 1996; Li & Zhang, 2007; Luk et al., 2008; Venkatraman, & Ramanujam, 1986). We asked respondents to compare



their (1) profitability, (2) net profit margin, (3) return on investment, (4) return on assets, (5) return on equity, and (6) overall financial performance with their industry rivals on a scale ranging from “1” = “below expectation” to “7” = “exceeded expectation”.

### *3.3.5. Control variables*

We added five control variables that might influence our research model. *Firm size* was measured with the logarithm transformation of number of full-time employees, while *firm age* was captured as the logarithm transformation of number of years the business has operated since its first sales. *Industry* was measured with a dummy variable, with “1” indicating manufacturing industry and “2” indicating otherwise. Finally, we controlled for *founder/CEO age* and *education* (“1” = “high school”, “2” = “associate degree”, “3” = “bachelor’s degree”, “4” = “master’s degree”, and “5” = “doctoral degree”).

## **4. Model Estimation**

### ***4.1. Common method variance, validity, and reliability test***

We performed confirmatory factor analysis (CFA) utilizing the maximum likelihood estimation method in LISREL 9.30 to assess the validity and reliability of our multi-item measures. We examined model fit using the conventional chi-square ( $\chi^2$ ) test and other fit indices. Although we collected data from both CEOs/entrepreneurs and finance managers, we followed the procedure suggested by Lindell and Whitney (2001) to test for potential common method variance. Accordingly, we introduced a marker test and analyzed the correlation between a marker variable and our main constructs. We used “I enjoy coming up with new ideas for products” as a marker variable, which is considered a measure of intrinsic interest in entrepreneurship, a variable theoretically unrelated to financial performance. Results indicate that intrinsic interest in entrepreneurship had a nonsignificant correlation ranging from -0.1 to 0.04. Inspecting partial

correlations that were hypothesized to be significant, we found they were significant even after we had discarded the effect of common method bias. We used a 95% sensitivity analysis to verify this conclusion. Overall, we believe that issues relating to common method bias are substantially eliminated from this study.

Subsequently, we evaluated the reliability and validity of our constructs. We obtained satisfactory model fit:  $\chi^2$  (degree of freedom [d.f.]) = 440.20 (223);  $p < 0.00$ ; root mean square error of approximation (RMSEA) = 0.04; non-normed fit index (NNFI) = 0.95; and comparative fit index (CFI) = 0.96. For each of the constructs, we also obtained factor loadings that are significant at 1% (see Table 1), supporting the convergent validity of the measures (Bagozzi & Yi, 1988). We assessed reliability by establishing convergent and discriminant validity of our constructs. We inspected composite reliability, average variance extracted (AVE), and highest shared variance (HSV). We inspected each construct's indices where they were larger than the suggested 0.70 cutoff (Bagozzi & Yi, 1988). Discriminant validity of each construct was assessed by following the procedure advanced by Fornell and Larcker (1981). Accordingly, we examined whether the AVE for each construct was greater than the shared variances of each pair of constructs. We established discriminant validity for each construct as the square root of each AVE for each construct is larger than the highest shared variance between each pair of constructs (see Table 2).

**[Table 1 about here]**

## **4.2 Results**

We examined the proposed moderated mediation model by utilizing Baron and Kenny's (1986) conventional approach. Prior to the regression analyses, we followed Aiken and West (1991) and mean centered all the continuous variables to account for potential multicollinearity associated

with moderating models. Results showed no indication of multicollinearity as the highest VIF (i.e., 3.01) was well below the suggested threshold value of 10 (Hair et al., 1998; Neter, Wasserman, & Kutner, 1990).

We present the descriptive statistics for our model in Table 2. We utilized an ordinary least square (OLS) regression to establish whether our model meets Baron and Kenny's (1986) criteria for mediation. According to the logic of this approach, mediation is established if: (1) the independent variable is significantly related to both the dependent and the mediating variable; (2) the mediator is significantly related to the dependent variable, and (3) the influence of the independent variable on the dependent variable is attenuated when the mediating variable is included in the regression equation. To achieve full mediation, the effect of the independent variable should no longer be significant when the mediating variable is included. Partial mediation is achieved if the influence of the independent variable is attenuated but remains significant.

**[Table 2 about here]**

We present the results of the OLS regression following Baron and Kenny's approach in Table 3. In Model 1, we present the effects of the control variables. Model 2 includes the effect of the moderating variable (competitive intensity). Model 3 adds the main effect of stakeholder integration on financial performance. We find support for the main proposition of our research model in Model 3, as the effect of stakeholder integration on financial performance is positive and statistically significant ( $\beta = 0.18$ ,  $p < 0.01$ ). Thus, we satisfy Baron and Kenny's (1986) first condition for mediation.

In Model 4, we show the effect of the independent variable (i.e., stakeholder integration) on the proposed mediator (i.e., ESO). This step represents the second step of the mediation

analysis. Results of this step show a positive and statistically significant effect of stakeholder integration on ESO ( $\beta = 0.22, p < 0.01$ ). This satisfies the second condition for mediation.

Model 5 presents the effect of the mediator on the dependent variable. Results show that the influence of ESO on financial performance ( $\beta=0.19, p < 0.01$ ) is positive and statistically significant. In addition, when the mediator is introduced in the regression equation, the effect of stakeholder integration is not significant any longer ( $\beta = 0.04; ns$ ). The results in Model 5 confirm Baron and Kenny's (1986) third requirement for mediation. Therefore, our results suggest that stakeholder integration is related to financial performance and that this effect is mediated by ESO. These findings confirm Hypothesis 1.

**[Table 3 about here]**

Model 6 tests the moderation hypothesis. The results of Model 6 show that the coefficient of the interaction between stakeholder integration and competitive intensity is statistically and significantly related to ESO ( $\beta = 0.48, p < 0.01$ ). This finding confirms Hypothesis 2. Following Aiken and West (1991), we performed a simple slope test and found that the effect of stakeholder integration on ESO is positive when industry competition is high ( $b = 0.19, t = 2.22, p < 0.01$ ). However, we found no significant effect of stakeholder integration on ESO when competition is low ( $b = 0.04, t = 0.42, ns$ ). As shown in Figure 2, the relationship between stakeholder integration and ESO is stronger for firms operating in competitive environments. These findings further support our regression results and confirm Hypothesis 2.

To derive additional insight into how the indirect effect differs depending on competitive intensity, we followed the bootstrapping approach suggested by Preacher, Rucker and Hayes (2007) and qualified the indirect effect at low (-1SD), mean, and high (+1SD) levels of competitive intensity. We present the indirect effect at values of competitive intensity and its associated 99%

confidence level intervals for this effect in Table 4. Our results show that none of the confidence intervals contains zero. Thus, we conclude that the indirect effect is statistically significant ( $p < 0.01$ ) at low, mean, and high values of competitive intensity. In addition, we observed that consistent with Hypothesis 2, the indirect effect of stakeholder integration on financial performance is stronger at high rather than low levels of competitive intensity, as the coefficient grows from 0.35 (low competitive intensity) to 0.97 (high competitive intensity).

**[Table 4 about here]**

Additionally, we established further evidence of full mediation by performing Sobel's (1982) test. This test calculates the magnitude of the unstandardized indirect effect and its standard error. Results from the Sobel test show that the indirect effect of stakeholder integration on financial performance ( $z=2.98, p < 0.01$ ) was as hypothesized and significant. This provides further evidence for full mediation.

**[Figure 2 about here]**

#### ***4.3. Robustness tests***

We established the robustness of our research model by performing two additional analyses. First, we utilized the structural equation modeling (SEM) approach to retest our hypotheses. Results using the SEM method support the mediating role of ESO and the moderating effect of competitive intensity. The fit heuristics for the indirect effect of stakeholder integration through ESO ( $\Delta\chi^2/\Delta df = 1.20$ ; RMSEA = 0.02; NNFI = 0.96; CFI = 0.95; and SRMSR = 0.06) indicate adequate fit. Thus, the empirical results using SEM are in line with our initial findings. Second, we estimated an alternative regression model using an objective financial performance measure, return on assets (ROA) (Venkatraman & Ramanujam, 1986) (N=102). This measure was computed as the ratio of

operating income to total assets (Lee, Cin & Lee, 2016; Florio & Leoni, 2017). Results of Baron and Kenny's (1986) causal approach using the objective measure of financial performance replicated our initial regression results.

## **5. Discussion and conclusion**

The main objective of the study was to examine relationships between environmental stakeholder integration and firm financial performance. We found that the relationship between stakeholder integration and financial performance is mediated by environmental sustainability orientation. We also found that, under conditions of intense industry competition, the indirect effect of levels of stakeholder integration on financial performance was stronger.

Our findings contribute to the stakeholder and environmental sustainability literatures in the following specific ways. First, we show that firms adopting environmental sustainability initiatives have positive outcomes, demonstrating the convergence toward globally accepted environmental sustainability standards (Fiaschi et al., 2015; Zheng et al., 2015, Marano, Tashman & Kostova, 2017). Thus, it is worthwhile for firms seeking to improve their financial performance to engage in environmental sustainability orientation, especially in the period when their sustainable strategies are receiving increasing attention from various stakeholders. This is particularly important in developing countries in that, in such a context, stakeholder integration may help to provide the needed structural support to mitigate the weak institutional structures, and consequently enhance the financial performance of the firms.

We extend the small business literature by examining the importance of environmental sustainability orientation in the relationship between stakeholder orientation and financial performance. By integrating the relevant insight from stakeholder theory and environmental sustainability perspective, we developed a new and important insight that has not yet been

considered by the extant literature and hence opens a new dimension for empirical work. Thus, we attempt to broaden our understanding of the interrelationship between stakeholder orientation, environmental sustainability, and financial performance, particularly from the context of developing economies. In addition, we demonstrate the role of industry competition in boosting the indirect effect of stakeholder integration on financial performance. Thus, in a competitive environment, firms are more likely to take an environmental sustainability orientation to differentiate themselves from other businesses.

From a practical perspective, the findings indicate that stakeholder integration into corporate decisions and strategies can be a valuable asset toward the implementation of SMEs' innovative processes to shape their environmental sustainability orientation for sustainable competitive advantages and consequently performance enhancement. The effect of a firm's environmental sustainability orientation on its financial performance is amplified when there are greater levels of stakeholder integration. In the same way, competitive intensity reinforces the indirect relationship between stakeholder integration and financial performance such that the indirect effect through environmental sustainability orientation is stronger for higher levels of industry competition. These findings are particularly crucial for environmentally benign SMEs that are domiciled in and/or operate in emerging market settings to understand the inherent implications of stakeholder integration at the firm level. Thus, for environmentally benign SMEs to boost innovative capabilities, strengthen competitive advantages, and eventually attain success in emerging market settings, this study demonstrates that stakeholders' integration into managerial decisions cannot be overlooked.

## 6. Limitations and suggestions for future research

Despite its contributions, our study has some limitations that offer opportunities for future research. Our study is undertaken in Ghana, a relatively small, developing country in sub-Saharan Africa. Although Ghana shares many characteristics with other developing economies, other developing countries may possess unique and varied contextual elements that allow for additional insights and theory development. In this respect, attention could be directed at exploring these relationships from the perspective of other developing countries as well as from that of developed countries. This should allow us to assess the extent to which our results differ across different study contexts. On a similar front, future studies could also explore this relationship across industrial settings to help offer understanding on how varying industrial contexts explain the relationship examined. Finally, though we used objective financial data to test the robustness of our research model, future studies could use longitudinal financial data set to estimate the overall research model. This approach could help establish causality.

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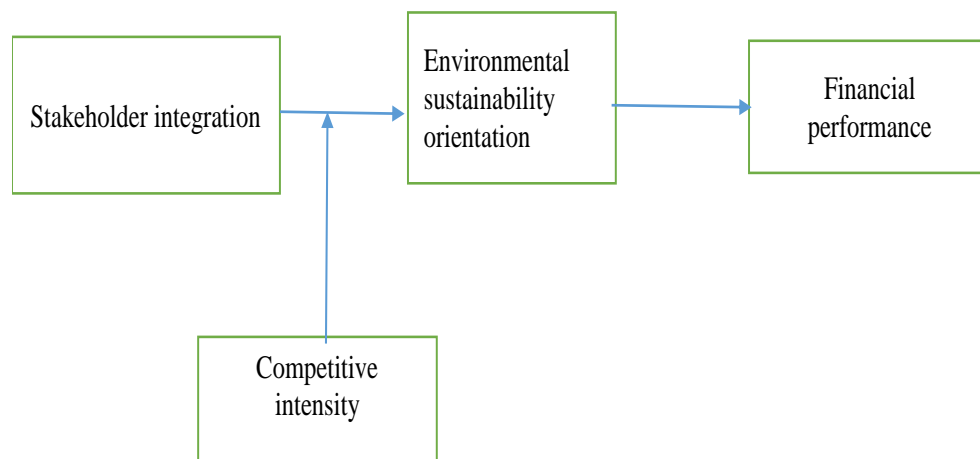
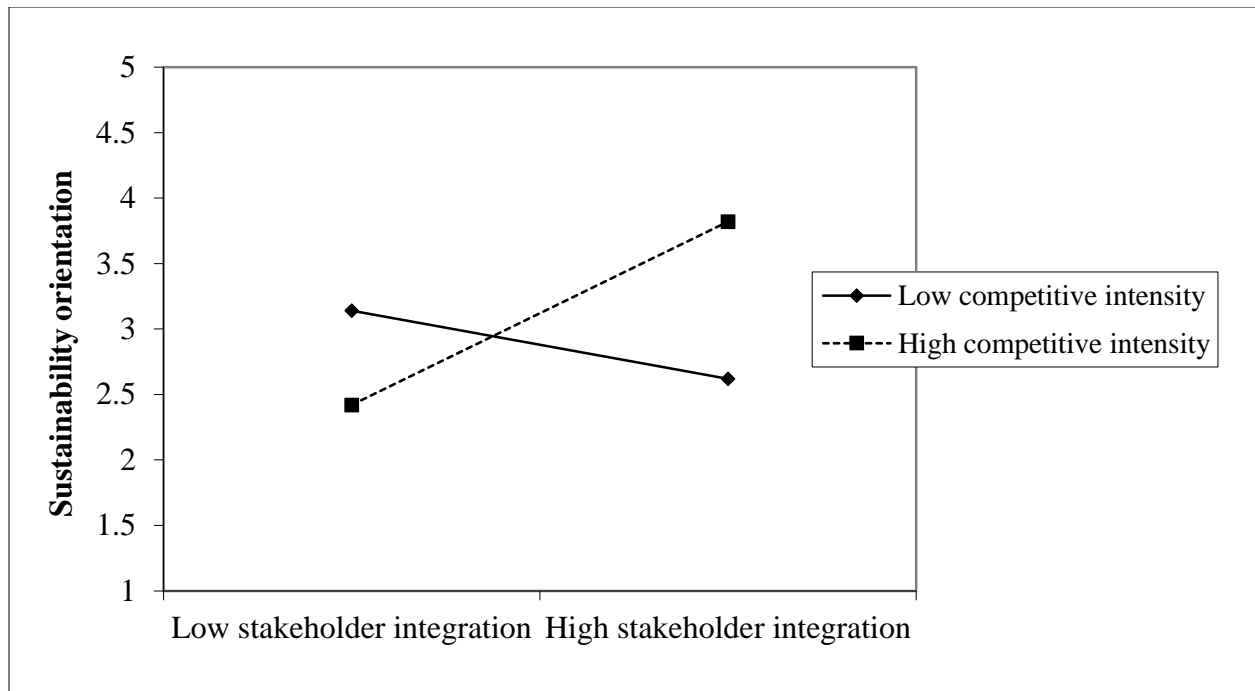


Figure 1. Conceptual model



**Figure 2. Interaction effect of stakeholder integration with competitive intensity on ESO**



**Table 1. Constructs, measurement items, and reliability and validity tests**

Item description	Loadings (t-values)
<b><i>Knowledge of Stakeholders:</i></b> $\alpha=0.96$ ; CR=0.95; AVE=0.58; HSV=0.21	
The company keeps documented information on the previous relationships with stakeholders	0.88(1.00)
The company obtains feedback on its repercussions on stakeholders	0.89(27.14)
The company dedicates little time and few resources to knowing the characteristics of its stakeholders (r)	0.87(26.70)
There is a lack of information and documentation on stakeholders' demands (r)	0.64(7.17)
<b><i>Interaction with stakeholders:</i></b> $\alpha=0.94$ ; CR=0.91; AVE=0.61; HSV=0.09	
The company frequently has meetings with the stakeholders	0.77(1.00)
The company consults the Stakeholders and asks them for information before taking decisions	0.81(23.23)
The company's formal or informal cooperation with the stakeholders is intense	0.77(9.47)
Stakeholders participate in the company's decision-taking process	0.82(18.30)
<b><i>Behaviors of adaptation:</i></b> $\alpha=0.94$ ; CR=0.90; AVE=0.63; HSV=0.12	
The company makes a special effort to prepare the information for the different stakeholders	0.67(1.00)
There is frequent managerial debate about the demands of the stakeholders	0.76(14.77)
The company is willing to change its objectives in line with stakeholders' demands	0.87(15.89)
The company dedicates little time and few resources to adapting to Stakeholders' demands (r)	0.73(8.34)
The company's policies and priorities are adapted to stakeholders' demands	0.71(7.97)
<b><i>Knowledge of environmental sustainability orientation:</i></b> $\alpha=0.92$ ; CR=0.90; AVE=0.57; HSV=0.14	
We are knowledgeable about climate change	0.73(1.00)
We know about waste management issues in the city	0.83(17.30)
We are knowledgeable on issues about sources of drinking water	0.80(17.94)
We are knowledgeable about issues concerning source of electricity	0.86(19.95)
We are knowledgeable about environmental protection programs	0.77(14.26)
<b><i>Practices of environmental sustainability orientation:</i></b> $\alpha=0.86$ ; CR=0.85; AVE=0.60; HSV=0.21	
We practice recycling of wastes	0.85 (1.00)
We practice water and electricity conservation	0.81 (13.20)
We offer training to our employees on environmental awareness	0.89 (18.44)
We participate in environmental programs	0.93 (23.10)
We practice low impact manufacturing technology	0.75 (8.19)
We communicate with customers/buyers on sustainability issues	0.78(10.87)
We deal with environment-friendly suppliers	0.64 (8.23)
Sustainability is an integral part of our business plans and operations	0.81 (13.24)
<b><i>Commitment to environmental sustainability orientation:</i></b> $\alpha=0.79$ ; CR=0.77; AVE=0.56; HSV=0.09	
Environmental protection is part of business	0.94 (1.00)
Committing to environmental sustainability is good for my business	0.79(11.21)
Our commitment to environmental allows us to gain more customers	0.88(17.14)
We are proud to do business in local community	0.82(13.66)
<b><i>Competitive intensity:</i></b> $\alpha=0.77$ ; CR=0.76; AVE=0.65; HSV=0.11	
Competition in our local market is intense	0.77 (1.00)
Our organizational unit has relatively strong competitors	0.90(19.59)
Price competition is a hallmark of our local market	0.83(17.22)
Competition in our local market is extremely high	0.79(12.21)
<b><i>Financial performance:</i></b> $\alpha=0.95$ ; CR=0.94; AVE=0.56; HSV=0.07	
-Profitability	0.89 (1.00)
-Net profit margin	0.93 (16.33)
-Return on investment	0.83 (12.70)
-Return on equity	0.89 (18.32)
-Return on asset	0.76 (9.62)
- Overall financial performance	0.91 (15.95)

Note: r=reverse coded

**Table 2: Descriptive statistics and correlations (Square Roots of AVE in Diagonal)**

	Variable	Mean	S.D	1	2	3	4	5	6	7	8	9
1.	Firm size (employees) <sup>a</sup>	40.62	103.65									
2.	Firm age <sup>a</sup>	7.32	3.12	0.11								
3.	Industry	1.53	0.49	-0.03	-.13*							
4.	CEO age <sup>a</sup>	51.47	13.64	-0.06	.04	-0.05						
5.	Education	2.54	0.67	0.02	0.00	0.04	0.04					
6.	Competitive intensity	4.12	0.95	-0.09	-0.14*	0.15*	0.00	0.02	(0.80)			
7.	Stakeholder integration	4.79	0.96	0.19**	0.12	0.16**	0.23**	0.27**	0.13*	(0.78)		
8.	Environmental sustainability orientation	3.38	1.42	0.21**	.08	0.14*	0.19**	0.15*	0.16*	0.19*	(0.76)	
9.	Financial performance	4.02	0.97	-0.09	-0.11	0.04	0.07	0.06	0.14*	0.12*	0.14*	(0.74)

\* $p < .05$ ; \*\* $p < .01$ . SD=standard deviation. <sup>a</sup> Logarithm transformation of original variable. AVE=average variance extracted.

**Table 3. Results of direct, indirect, and moderating effects**

	Model 1 Financial performance	Model 2 Financial performance	Model 3 Financial performance	Model 4 Environmental sustainability orientation	Model 5 Financial performance	Model 6 Environmental sustainability orientation
Firm size <sup>a</sup> (full-time employees)	-0.08*	-0.09*	-0.10*	-0.09*	-0.06	-0.10*
Firm age <sup>a</sup> (years)	-0.04	-0.04	-0.05	-0.06	-0.05	-0.07*
Industry	0.03	0.03	0.03	0.04	0.05	0.06
CEO age <sup>a</sup>	0.03	0.05	0.06	0.06	0.03	0.08*
Education	0.04	0.05	0.05	0.07*	0.07*	0.08*
Competitive intensity		0.12*	0.12*	0.08*	0.11*	0.10*
<i>Main effects</i>						
Stakeholder integration			0.18***	0.22***	0.04	0.21***
<i>Mediating effect</i>						
Environmental sustainability orientation (ESO)					0.19***	
<i>Moderating effect</i>						
Stakeholder integration x competitive intensity						0.48***
R <sup>2</sup>	0.13	0.17	0.25	0.33	0.39	0.48
ΔR <sup>2</sup>	-	0.04	0.08	0.08	0.06	0.09
F	1.74	2.02	3.94	4.44	5.80	7.99
Mean VIF	1.99	3.01	2.21	2.07	1.88	2.47

<sup>a</sup>Log transformation of the original number. N=233; \*  $p < 0.10$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$ ; Standardized coefficients are shown

**Table 4. Conditional indirect effect of stakeholder integration on financial performance at values of competitive intensity**

	Conditional indirect effects of stakeholder integration			
	Competitive intensity	Effect	LLCI99% <sup>a</sup>	ULCI99% <sup>a</sup>
Environmental sustainability orientation	−0.84 (−1SD)	0.35 (0.23)	0.04	1.03
Environmental sustainability orientation	0 (Mean)	0.63 (0.26)	0.22	1.37
Environmental sustainability orientation	0.84 (+1SD)	0.97 (0.37)	0.34	1.79

\*Bootstrapping standard errors in parentheses. <sup>a</sup>99% confidence intervals presented